



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
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NOTICE OF ACCEPTANCE (NOA)

Sika Sarnafil, A Division of Sika Corp.
100 Dan Road
Canton, MA 02021

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Sika Sarnafil PVC Single Ply Roofing over Cementitious Wood Fiber Deck

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA No. 13-1008.11 and consists of pages 1 through 17.
The submitted documentation was reviewed by Alex Tigera.



NOA No.: 14-0624.10
Expiration Date: 08/02/16
Approval Date: 05/21/15
Page 1 of 17

ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Single Ply
Material: PVC
Deck Type: Cementitious Wood Fiber
Maximum Design Pressure: -52.5 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
G410	60, 72 and 80 mils	ASTM D 4434	Fiberglass reinforced PVC roofing membrane.
G410 Felt	48, 60, 72 and 80 mils	ASTM D 4434	Fiberglass reinforced PVC roofing membrane with a non-woven felt backing.
G459	48, 60, 72 and 80 mils	ASTM D 4434	Fiberglass reinforced PVC Alloy asphalt compatible flashing membrane.
S327	48, 60, 72 and 80 mils	ASTM D 4434	Polyester reinforced PVC roofing membrane.
S327 Felt	48 mils	ASTM D 4434	Polyester reinforced PVC roofing membrane with a non-woven felt backing.
Sarnatape	Various	Proprietary	Air flow barrier tape
Sarnacol 2170	5 gallons	Proprietary	Solvent based bonding adhesive.
Sarnacol 2121	5 gallons	Proprietary	Water based bonding adhesive.
Sarnacol OM Board Adhesive	5 gallons	Proprietary	Two-component foamable polyurethane insulation adhesive.
OlyBond 500	5 gallons	Proprietary	Two-component foamable polyurethane insulation adhesive.
Sarnacol 2170 VC	Various	Proprietary	Solvent-based, VOC compliant adhesive.
Sarnatred	3.25' x 32.8'	Proprietary	PVC walkway protection sheet.
Sarnastack	Various	Proprietary	Prefabricated cone flashing.
Sarnaclad	Various	Proprietary	Heat weldable PVC/galvanized steel flashing



APPROVED INSULATIONS:

TABLE 2

<u>Product</u>	<u>Product Description</u>	<u>Manufacturer (with current NOA)</u>
Sarnatherm	Isocyanurate Insulation	Sika Sarnafil, A Division of Sika Corp.
Sarnatherm-25 PSI	Polyisocyanurate insulation board	Sika Sarnafil, A Division of Sika Corp.
Sarnatherm (a)	Isocyanurate Insulation	Sika Sarnafil, A Division of Sika Corp.
ACFoam-II, ACFoam-III	Isocyanurate Insulation	Atlas Roofing Corp.
ACFoam-IV	Isocyanurate Insulation	Atlas Roofing Corp.
ACFoam Supreme	Isocyanurate Insulation	Atlas Roofing Corp.
DensDeck Prime	Silicon treated gypsum	Georgia Pacific Gypsum LLC
ENRGY 3	Isocyanurate Insulation	Johns Manville Corp.
ENRGY 3 Plus	Isocyanurate Insulation with wood fiberboard facer	Johns Manville Corp.
ENRGY 3 PSI-25	Isocyanurate Insulation	Johns Manville Corp.
H-Shield	Isocyanurate Insulation	Hunter Panels, LLC
H-Shield HD	Isocyanurate Insulation	Hunter Panels, LLC
ISO 95+ GL	Isocyanurate Insulation	Firestone Building Products Company, LLC
Perlite Insulation Board	Perlite Insulation	Generic
Type X Gypsum	Gypsum Wallboard	Generic
Structodek High Density Fiberboard Roof Insulation	High Density Wood Fiber insulation board.	Blue Ridge Fiberboard, Inc.
SECUROCK Gypsum-Fiber Roof Board	A rigid gypsum based board	United States Gypsum Corp.
SECUROCK Glass-Mat Roof Board	A rigid gypsum based board	United States Gypsum Corp.
Invinsa Roof Board	High density polyisocyanurate	Johns Manville Corp.

APPROVED FASTENERS:**TABLE 3**

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
1.	Polymer GypTec	Glass reinforced nylon fastener used with Polymer GypTec Insulation Plate (3" round)	Various	OMG, Inc.
2.	Polymer GypTec Insulation Plate	Glass reinforced nylon	Various	OMG, Inc.
3.	Lite Deck	Carbon Steel CR-10 Coating (black)	3" Round (min.2")	OMG, Inc.
4.	Sarnafastener	Insulation and membrane fastener	Various	Sika Sarnafil, A Division of Sika Corp.
5.	Sarnafastener Polymer GypTec	Glass reinforced nylon fastener used with Sarnadisc GypTec plate (3" round)	Various	Sika Sarnafil, A Division of Sika Corp.
6.	Sarnaplate	Insulation fastening plate.	3" Round	Sika Sarnafil, A Division of Sika Corp.
7.	Sarnabar	Galvanized or stainless steel membrane fastening bar.	Various	Sika Sarnafil, A Division of Sika Corp.

EVIDENCE SUBMITTED:

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
Celotex Technical Center	MTS Job No. 258215	TAS 114	09/09/97
Exterior Research & Design	02767.02.06	TAS 114	02/08/06
Factory Mutual Research Corporation	3016201	FM 4470	01/28/03
	3039809	FM 4470	07/06/11
	3001396	FM 4470	05/28/99
Underwriters Laboratories, Inc.	R8992	UL 790	05/15/13
Trinity ERD	S44790.06.13	ASTM D4434	06/05/13
	S42480.08.12	Physical Properties	08/20/12
	S44790.08.13	ASTM D4434	08/26/13
	S44790.07.14	ASTM D4434	07/31/14

APPROVED ASSEMBLIES:

Membrane Type:	Single Ply, PVC
Deck Type 5I:	Cementitious Wood Fiber, Insulated
Deck Description:	Cementitious Wood Fiber
System Type A(1):	One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, AC Foam-II, ENRGY 3, H-Shield Minimum: 1.5" thick	N/A	N/A
Structodek High Density Fiberboard Roof Insulation Minimum: 0.5" thick	N/A	N/A
DensDeck Prime Minimum: 0.25" thick	N/A	N/A
<u>Top Insulation Layer: (Optional)</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, AC Foam-II, ENRGY 3, H-Shield Minimum 1.5" thick	N/A	N/A
Structodek High Density Fiberboard Roof Insulation Minimum: 0.5" thick	N/A	N/A
DensDeck Prime Minimum: 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in Sarnacol OM Board Adhesive, OlyBond 500 or SpotShot adhesive applied in continuous ¾" – 1" wide ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With ISO*) Sarnafil G410 or S327 adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at 0.75-2 gal.sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3” wide side lap is sealed with a 1.5” wide heat weld.

Or

(*With Structodek High Density Fiberboard Roof Insulation*) Sarnafil G410 or S327 adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3” wide side lap is sealed with a 1.5” wide heat weld.

Or

(*With DensDeck Prime*) Sarnafil G410 or S327 adhered with Sarnacol 2170 adhesive roller applied at a rate of 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3” wide side lap is sealed with a 1.5” wide heat weld.

Or

(*With ACFoam-II, H-Shield, ENRGY 3, Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI or DensDeck Prime*) Sarnafil G410 or S327 adhered with Sarnacol 2170 VC adhesive roller applied at a rate of 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3” wide side lap is sealed with a minimum 1.25” wide heat weld.

Or

(*With ACFoam-II, H-Shield, ENRGY 3, Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI or DensDeck Prime*) Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3” wide side lap is sealed with a minimum 1.25” wide heat weld.

**Maximum Design
Pressure:**

-45 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC
Deck Type 5I: Cementitious Wood Fiber, Insulated
Deck Description: Cementitious Wood Fiber
System Type A(2): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ENRGY 3, H-Shield Minimum: 1.5" thick	N/A	N/A
DensDeck Prime Minimum: 0.25" thick	N/A	N/A
<u>Top Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
DensDeck Prime Minimum: 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in full coverage of OlyBond Insulation Adhesive at a rate of 1 gal/sq. Refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

Sarnafil G410 or S327 adhered with Sarnacol 2170 or Sarnacol 2170 VC adhesive roller applied at a rate of 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Or

Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure: -45 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC
Deck Type 5I: Cementitious Wood Fiber, Insulated
Deck Description: Cementitious Wood Fiber
System Type A(3): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ENRGY 3, H-Shield Minimum: 1.5" thick	N/A	N/A
<u>Middle Insulation Layer (Optional):</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ENRGY 3, H-Shield Tapered	N/A	N/A
<u>Top Insulation Layer (Optional):</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Structodek High Density Fiberboard Roof Insulation Minimum: 0.5" thick	N/A	N/A
DensDeck Prime Minimum: 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: *(With ISO and DensDeck Prime)* Sarnafil G410 or S327 adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.



Or

(*With ISO and DensDeck Prime*) Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With Structodek High Density Fiberboard Roof Insulation*) Sarnafil G410 or S327 adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With ACFoam-II, H-Shield, Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI or DensDeck Prime*) Sarnafil G410 or S327 adhered with Sarnacol 2170 VC adhesive roller applied at a rate of 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Or

(*With ACFoam-II, H-Shield, Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI or DensDeck Prime*) Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

**Maximum Design
Pressure:**

-52.5 psf. (See General Limitation #9)

Membrane Type: Single Ply, PVC
Deck Type 5I: Cementitious Wood Fiber, Insulated
Deck Description: Cementitious Wood Fiber
System Type A(4): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer (Optional):</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ENRGY 3, H-Shield Minimum: 1.5" thick	N/A	N/A
<u>Middle Insulation Layer: (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm, Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ENRGY 3, H-Shield Tapered	N/A	N/A
<u>Top Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Structodek High Density Fiberboard Roof Insulation Minimum: 0.5" thick	N/A	N/A
DensDeck Prime Minimum: 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.



Or

(*With Structodek High Density Fiberboard Roof Insulation*) Sarnafil G410 or S327 adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With DensDeck Prime*) Sarnafil G410 or S327 adhered with Sarnacol 2170 adhesive or Sarnacol 2170 VC adhesive applied at a rate of 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Or

(*With DensDeck Prime*) Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

**Maximum Design
Pressure:**

-52.5 psf. (See General Limitation #9)



Membrane Type:	Single Ply, PVC
Deck Type 5I:	Cementitious Wood Fiber, Insulated
Deck Description:	Cementitious Wood Fiber
System Type B:	Base Layer of insulation mechanically attached, top insulation layer fully adhered with approved asphalt.
Vapor Retarder (Optional):	Any FM approved vapor barrier approved for use with hot asphalt may be applied to the deck or perlite base layer.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more of the following insulations:

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, AC Foam-II, H-Shield		
Minimum 1.3" thick or tapered	1, 2, or 3	1:2 ft ²
Minimum 2" thick or tapered	1, 2, or 3	1:4 ft ²
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ENRGY 3, ENRGY 3 Plus, ENRGY 3 PSI-25, H-Shield		
Minimum 1.4" thick or tapered	1, 2, or 3	1:3 ft ²
Minimum 2" thick or tapered	1, 2, or 3	1:4 ft ²
DensDeck Prime		
Minimum 1/4" thick	1, 2, or 3	1:1.2 ft ²
Minimum 1/2" thick	1, 2, or 3	1:1.7 ft ²
Approved Perlite Insulation Board (base layer only)		
Minimum 3/4" thick	1, 2, or 3	1:2 ft ²

Note: Base layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).



<u>Top Insulation Layer:</u>	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-II Minimum: 1.3' Thick or tapered	N/A	N/A
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ENRGY 3, ENRGY 3 Plus, ENRGY 3 PSI-25, H-Shield Minimum 1.4" Thick or tapered	N/A	N/A
DensDeck Prime Minimum ¼" Thick	N/A	N/A

Note: Optional top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Membrane: Sarnafil G410 or S327 adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(With DensDeck Prime) Sarnafil G410 or S327 adhered with Sarnacol 2170 adhesive roller applied at a rate of 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(With ACFoam-II, H-Shield, Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI or DensDeck Prime) Sarnafil G410 or S327 adhered with Sarnacol 2170 VC adhesive roller applied at a rate of 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Or

(With ACFoam-II, H-Shield, Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI or DensDeck Prime) Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure:

-45 psf. (See General Limitation #9)

Membrane Type: Single Ply, PVC
Deck Type 5I: Cementitious Wood Fiber, Insulated
Deck Description: Cementitious Wood Fiber
System Type C(1): All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarder (Optional): An FM approved vapor barrier approved for use with hot asphalt may be applied to the deck or perlite base layer.

<u>Base Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ACFoam Supreme, H-Shield Minimum: 1.3" Thick or tapered	N/A	N/A
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ENRGY 3, ENRGY 3 Plus, ENRGY 3 PSI-25, ISO 95+ GL, H-Shield Minimum: 1.4" Thick or tapered	N/A	N/A
DensDeck Prime Minimum: 1/4" Thick	N/A	N/A
Approved Perlite Insulation Board Minimum: 3/4" Thick	N/A	N/A

Note: All insulation layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners shall be increased maintaining the same fastener density. Please refer Roofing Application Standard RAS 117 for insulation attachment.

<u>Top Insulation Layer:</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-II Minimum 1.3" thick or tapered	1, 2, or 3	1:2 ft ²
Minimum 2" thick or tapered	1, 2, or 3	1:4 ft ²
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ENRGY 3, ENRG 3 Plus, ENRGY 3 PSI-25, H-Shield Minimum 1.4" thick or tapered	1, 2, or 3	1:3 ft ²
Minimum 2" thick or tapered	1, 2, or 3	1:4 ft ²
DensDeck Prime Minimum 1/4" thick	1, 2, or 3	1:1.2 ft ²
Minimum 1/2" thick	1, 2, or 3	1:1.7 ft ²



Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sarnafil G410 or S327 adhered with Sarnacol 2170 adhesive roller applied at a rate of 0.75-2gal/sq. to the substate and 0.5 gal/sq. to the back of the Membrane, or Sarnacol 2121 adhesive applied to the substrate only at 0.75 gal./sq. Minimum 3” wide side lap is sealed with a 1.5” wide heat weld.

Or

(With ACFoam-II, Sarnatherm (a), Sarnatherm-25 PSI or DensDeck Prime) Sarnafil G410 or S327 adhered with Sarnacol 2170 VC adhesive roller applied at a rate of 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3” wide side lap is sealed with a minimum 1.25” wide heat weld.

Or

(With ACFoam-II, Sarnatherm (a), Sarnatherm-25 PSI or DensDeck Prime) Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3” wide side lap is sealed with a minimum 1.25” wide heat weld.

Maximum Design Pressure:

-45 psf. (See General Limitation #9)



GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. **Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.**
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. Insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117 and/or RAS 137. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE